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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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Seattle, WA 98101

June 12, 2003

Reply To
Attn Of: ECO-088

97-062-DOE

Mr. Michael S. Collins, HWS EIS Document Manager
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U.S. Department of Energy, A6-38
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FAX TRANSMITTAL

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To <i>George Savley</i>	From <i>Dave Einar</i>
Dept./Agency	Phone #
Fax #	Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION	

Dear Mr. Collins:

The U.S. Environmental Protection Agency (EPA) has reviewed the revised draft Environmental Impact Statement (EIS) for the *Hanford Site Solid (Radioactive and Hazardous) Waste Program* (CEQ #030162) (revised draft HSW EIS) in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The revised draft HSW EIS provides environmental and technical information concerning the U.S. Department of Energy's (DOE) proposed waste management practices at the Hanford Site and tiers from the final *Waste Management Programmatic EIS for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (WM PEIS) issued by the DOE in 1997. The HSW EIS also updates previous environmental reviews prepared for waste management operations at the Hanford Site.

1 U.S. EPA is pleased that the revised draft HSW EIS significantly addresses issues that we raised during our review of the earlier draft HSW EIS. The revised draft analyzes alternatives that we recommended, including the use of single, deep, lined trenches (i.e., megatrench), and provides more information on mitigation measures. While these changes have improved the quality of the EIS, we do have some environmental concerns due to the document's lack of information and analyses highlighting the differences in environmental effects among alternatives (including effects of mitigation measures) and ensuring compliance with applicable environmental standards. We have consequently rated the revised draft EIS, EC-2 (Environmental Concerns-Insufficient Information).

Specific information that should be contained in the final EIS includes:

- additional groundwater analyses reflecting a wider range of predictions that would complement existing analysis;
- more detailed analyses allowing the decision-maker and readers to understand the difference in environmental effects among alternatives;
- additional analysis of groundwater effects at the point of compliance, the facility boundary; and

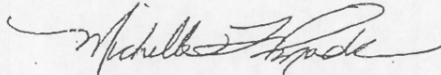
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- prescribed mitigation measures with the effects of such measures incorporated into the effects analysis.

We believe that evaluating groundwater impacts at the correct point of compliance (i.e., the facility boundary as required by 40 CFR 264.95) may compel inclusion of prescriptive mitigation measures as part of action alternatives to ensure that groundwater standards are met. In contrast, the revised draft HSW EIS discusses mitigation measures in a general way and states that the decision to implement these measures would be based on reviews of performance assessments. The final EIS should demonstrate that the agency-preferred alternative would comply with groundwater standards, as required by the *Record of Decision for the Department of Energy's Waste Management Program: Treatment and Disposal of Low-Level Waste and Mixed Low-Level Waste* (65 FR 10061).

Enclosed are a description of our rating system and U.S. EPA's detailed comments which elaborates on our environmental concerns and the method of addressing them. A summary of U.S. EPA's comments will be published in the *Federal Register*. U.S. EPA is committed to continue working with DOE, and, when appropriate, the Washington Department of Ecology, in the resolution of these issues. Please contact Mr. Chris Gebhardt of my staff, at (206) 553-0253, or Mr. David Einan, in U.S. EPA's Hanford Operation Office, at (509) 376-3883 to discuss these issues further. Thank you for the opportunity to comment and assist in the development of this revised draft HSW EIS.

Sincerely,



Michelle Pirzadeh, Acting Director
Office of Ecosystems and Communities

Enclosures

cc: Mike Wilson, Ecology
Richard Gay, CTUIR
Pat Sabotta, Nez Perce Tribe
Russell Jim, Yakama Nation
Todd Martin, HAB
Ken Niles, OOE

**U.S. EPA's Detailed Comments on the Draft Environmental Impact Statement (EIS)
for the Hanford Solid Waste (HSW) Program**

Background Information

The U.S. Environmental Protection Agency (EPA) rated the previous draft HSW EIS, EO-2 (Environmental Objections-Insufficient Information). U.S. EPA assigned this rating because 1) all action alternatives were predicted to exceed Maximum Contaminant Levels (MCLs), thereby causing or worsening contamination problems in the vadose zone and groundwater and potentially creating more required clean-up and 2) insufficient information existed to fully describe existing and predicted environmental impacts, and if proposed activities would divert resources or capacity from the clean-up scheduled at Hanford. U.S. EPA believed that predicted contamination from action alternatives could be avoided with mitigation measures and adoption of other alternatives.

Consequently, U.S. EPA recommended the following changes to the EIS:

- Present and analyze a fully range of reasonable alternatives with additional mitigation measures that would comply with environmental standards and reflect real differences in environmental impacts.
- Provide more extensive analyses and description of existing, predicted, and cumulative impacts including a breakdown of impacts from wastes originating at Hanford versus other sites.

Alternatives and Mitigation Measures

The revised draft HSW EIS includes the following three new alternatives: 1) disposal by waste type in expandable design facility and onsite and offsite treatment, 2) single combined-use disposal facility and onsite and offsite treatment, and 3) dual combined-use disposal facilities and onsite and offsite treatment. Inclusion of these alternatives significantly broadens the range of disposal options discussed in the EIS and provides options that help avoid potential contamination.

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The draft HSW EIS discusses mitigation measures in greater detail but proposes delaying adoption of these measures until reviews of performance measures following project implementation indicate the need to use them. In lieu of this approach, we strongly recommend that action alternatives incorporate these mitigation measures (which largely focus on treatment) as integral elements and factor the reduced impacts arising from use of these measures into the effects' analysis. We also believe that including prescriptive mitigation measures as part of action alternatives might be necessary to meet groundwater standards when groundwater impacts are evaluated at the correct point of compliance.

Extensive Description and Analysis of Impacts

The revised draft HSW EIS provides more extensive analyses and description of existing, predicted, and cumulative impacts including a breakdown of impacts from wastes originating at Hanford versus other sites. Two significant issues, however, remain outstanding.

3 First, the revised draft HSW EIS describes impacts to groundwater one kilometer downgradient of the correct point of compliance, the facility boundary. The revised draft HSW EIS states that these points are not meant to represent points of compliance but rather common locations to facilitate a more complete comparison of long term impacts from various waste management configurations and locations defined for each alternative. We commend DOE for including information that assists the decisionmaker and reader in comparing alternatives, however, information indicating compliance with environmental standards is also extremely relevant and necessary for the decisionmaker to make an informed decision when selecting between alternatives. The Council of Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Implementation Regulations at 40 CFR 1502.2 states that an EIS shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of environmental laws and policies. The final HSW EIS should predict groundwater impacts at the point of compliance (i.e., the facility boundary) and state if action alternatives meet applicable groundwater standards.

4 Second, the environmental consequences chapter reveals few differences among adopting different action alternatives. This limits the decision-maker's and readers' ability to clearly distinguish between alternatives. CEQ NEPA Regulations at 40 CFR 1502.14 state that the affected environment and environmental consequences should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining issues and providing a clear basis for choice among the options by the decision-maker and the public. The EIS should present analyses extending beyond that found in the revised draft document. Complementary analyses should represent a range of assumptions and uncertainties and identify the most realistic predictions. The inclusion or absence of mitigation measures with the associated effectiveness of these measures included in the effects' analyses would also help define issues and provide a clearer basis for choice.

Specific Comments

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| 5 | 1. | Section 3.4.3, page 3.25, lines 20-22. This sentence ignores the carbon tetrachloride in the groundwater that apparently came from a burial ground. |
| 6 | 2. | Section 3.4.8, page 3.35, line 34. This sentence states that transportation is the same for all alternative groups. The No Action Alternative should be different. |
| 7 | 3. | Section 3.4.11.3, page 3.41, line 21. The maximum values should also be compared to EPA's standards of 10 mrem from air pathways (and 4 mrem from drinking water). |
| | 4. | Section 4.2, page 4.5, line 14. CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act (emphasis added). |
| 8 | 5. | Section 5.8 and Appendix H. The transportation impacts need to be updated with the current data and methods. |
| 9 | 6. | Section 5.15, page 5.252. The amount of the vadose zone and groundwater that may be irreversibly and irretrievably committed needs to be better identified and quantified. |